

# SEQUENCE LISTING

<110> Chemin, Isabelle  
Trepo, Christian

<120> Nucleic Acid and Protein Sequences from the HXHV Virus and Uses  
Thereof

<130> 126542

<140> US 10/563,134

<141> 2006-06-13

<150> PCT/FR2004/050310

<151> 2004-07-05

<160> 39

<170> PatentIn version 3.3

<210> 1

<211> 1362

<212> DNA

<213> Hepatitis X Related Virus

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ccgagatcgt caccgacgag gg	562

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accgcgtaca gcacaagaag ggaagctcgg gccgacgtct ttgcctacct ggagcggttc	180
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 <212> DNA  
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ggggccgcgt gccagggcga attcgcgctt cttggagcgc atgcg 285

<210> 6  
<211> 141  
<212> DNA  
<213> Hepatitis X Related Virus

<400> 6  
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caatcgccga acgggtacgc g 141

<210> 7  
<211> 825  
<212> DNA  
<213> Hepatitis X Related Virus

<400> 7  
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ccggggccgc gtgccaggc gaattcgcgt ctcttgagc gcatgcgtga aatccacgag 120  
gacagccgag gcatcatcgg cgcgcgtcgg atgcaggaag acctcgccga cgaaggcatg 180  
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<210> 8

<211> 207  
 <212> DNA  
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 cagcgatacg taccagaagt tcctcggcag ccatgccttg gtctgcagca tgagcgaggt 180  
 cggccattgc ggcgacaacg cagcatg 207

<210> 9  
 <211> 87  
 <212> DNA  
 <213> Hepatitis X Related Virus

<400> 9  
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 tctcgtcttt ttcatgagcg gggcggg 87

<210> 10  
 <211> 87  
 <212> DNA  
 <213> Hepatitis X Related Virus

<400> 10  
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 cgtgtcatgc acaagcaatc ggatcat 87

<210> 11  
 <211> 198  
 <212> DNA  
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 tcgaccttta agcgcattcc catagcgtac tgggaccct gatgccgagg cacgaagtag 180  
 caggtaacat cgtgtcat 198

<210> 12  
 <211> 111  
 <212> DNA  
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<400> 12  
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 cttgccggcc aaaagccact ggataaggtc gacctttaag cgcattccca t 111

<210> 13  
 <211> 84  
 <212> DNA  
 <213> Hepatitis X Related Virus

<400> 13  
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 gccattgcgg cgacaacgca gcat 84

<210> 14  
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 agcgagggtcg gccat 795

<210> 15  
 <211> 156  
 <212> DNA  
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 gaagttcctc ggcagccatg ccttggtctg cagcat 156

<210> 16

<211> 201  
<212> DNA  
<213> Hepatitis X Related Virus

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aaccgacatc accgagatcg tcaccgacga gggaaaactc catctctgcg tcgtcctcga 180  
cctgtacagc aaactcatca t 201

<210> 17  
<211> 171  
<212> DNA  
<213> Hepatitis X Related Virus

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cctcgccgac gaaggcatgc ccgccagctt gaatcgggtg gcccgcgta t 171

<210> 18  
<211> 95  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 18

Ser Arg Asp Ser Thr Ile Ala Pro Ala Pro Leu Met Lys Arg Ser Leu  
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Gly Ser Ser Ala Asn Cys Arg Val Leu Pro Arg Asn Glu Ile Phe Tyr  
20 25 30

Glu Thr Arg Gln Arg Thr Ser Arg Ser Asn Arg Arg Thr Val Arg Gly  
35 40 45

Asp Arg Ala Leu Pro Gln Arg Leu Pro His Trp Asp Asp Val Pro Leu  
50 55 60

Pro Ser Ser Val Asp Gln Trp Val Leu Arg Leu Gly Gln Ala Lys Ala  
65 70 75 80

Gly Ala Ala Cys Pro Gly Glu Phe Ala Ser Leu Gly Ala His Ala  
85 90 95

<210> 19  
<211> 47  
<212> PRT

<213> Hepatitis X Related Virus

<400> 19

Ser Arg Leu Asn His Arg Ser Arg Pro Ala Asp Glu Lys Val Ala Arg  
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Leu Lys Arg Glu Leu Ser Arg Val Thr Lys Glu Arg Asp Phe Leu Arg  
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Asp Ala Ala Ala Tyr Phe Ala Lys Gln Ser Pro Asn Gly Thr Arg  
35 40 45

<210> 20

<211> 275

<212> PRT

<213> Hepatitis X Related Virus

<400> 20

Met Met Cys Arg Cys Leu Gln Val Ser Thr Ser Gly Phe Tyr Ala Trp  
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Ala Arg Arg Lys Pro Gly Pro Arg Ala Gln Ala Asn Ser Arg Leu Leu  
20 25 30

Glu Arg Met Arg Glu Ile His Glu Asp Ser Arg Gly Ile Ile Gly Ala  
35 40 45

Arg Arg Met Gln Glu Asp Leu Ala Asp Glu Gly Met Pro Ala Ser Leu  
50 55 60

Asn Arg Val Ala Arg Val Met Ala Lys Ala Gly Leu Gln Gly Trp Pro  
65 70 75 80

Arg Arg Lys Lys Arg Gly Phe Pro Arg Lys Pro Pro Thr Arg Arg Pro  
85 90 95

Glu Gly Val Arg Asn Leu Leu Glu Arg Asp Phe Ser Ala Leu Glu Pro  
100 105 110

Glu Thr Lys Trp Val Thr Asp Ile Thr Glu Ile Val Thr Asp Glu Gly  
115 120 125

Lys Leu His Leu Cys Val Val Leu Asp Leu Tyr Ser Lys Leu Ile Met  
130 135 140

Gly Trp Ser Met His His Arg Gln Asp Arg His Met Val Val Arg Ala  
145 150 155 160



Val Gln Met Ala Val Trp Gln Arg Glu Gly Gly Asp Glu Val Ile Leu  
165 170 175

His Ser Asp Arg Gly Gly Gln Phe Ile Ser Asp Thr Tyr Gln Lys Phe  
180 185 190

Leu Gly Ser His Ala Leu Val Cys Ser Met Ser Glu Val Gly His Cys  
195 200 205

Gly Asp Asn Ala Ala Cys Glu Gly Phe Phe Gly Leu Leu Lys Arg Glu  
210 215 220

Trp Ile Tyr Gln Thr Arg Tyr Ser Thr Arg Arg Glu Ala Arg Ala Asp  
225 230 235 240

Val Phe Ala Tyr Leu Glu Arg Phe His Asp Pro Arg Met Arg Arg Arg  
245 250 255

Val Ala Arg Arg Asp Arg Glu Phe Gln Ala Leu Ile Lys Pro Ser Ala  
260 265 270

Glu Thr Gly  
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<210> 21  
<211> 69  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 21

Met Val Asp Ala Ser Pro Ala Gly Ser Pro His Gly Gly Ser Arg Gly  
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Thr Asp Gly Gly Leu Ala Ala Arg Gly Arg Arg Arg Gly Asp Pro Ala  
20 25 30

Phe Arg Ser Arg Arg Ala Val His Gln Arg Tyr Val Pro Glu Val Pro  
35 40 45

Arg Gln Pro Cys Leu Gly Leu Gln His Glu Arg Gly Arg Pro Leu Arg  
50 55 60

Arg Gln Arg Ser Met  
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<210> 22  
<211> 29  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 22

Met Pro Arg His Glu Val Ala Gly Asn Ile Val Ser Cys Thr Ser Asn  
1 5 10 15

Arg Ile Met Ser Ser Arg Ser Phe His Glu Arg Gly Gly  
20 25

<210> 23  
<211> 29  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 23

Arg Cys Glu Trp Leu Thr Ser Pro Gly Arg Ile Gly Leu Cys Ser Thr  
1 5 10 15

Ala Pro Leu Met Thr Asp His Val Leu Leu Arg Ile Met  
20 25

<210> 24  
<211> 66  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 24

Thr Ser Asn Arg Val Arg Cys Arg Phe Ser Leu Pro Ser Thr Lys Ser  
1 5 10 15

Thr Thr Arg Arg Arg Arg Pro Ser Val Leu Phe Thr His Gly Gly Gln  
20 25 30

Arg Gly Phe Ala Val Pro Tyr Pro Arg Gly Lys Leu Ala Asn Gly Tyr  
35 40 45

Arg Val Pro Val Gly Ser Ala Ser Ala Arg Leu Leu Leu Tyr Cys Arg  
50 55 60

Thr Met  
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<210> 25  
<211> 37  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 25

His Arg Arg Arg Arg Pro Leu Val Val Asp Glu Arg His Tyr Leu Phe  
1 5 10 15

Arg Thr Asp Glu Lys Gly Ala Leu Leu Trp Gln Ile Leu Asp Val Lys  
20 25 30

Leu Arg Met Gly Met  
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<210> 26

<211> 28

<212> PRT

<213> Hepatitis X Related Virus

<400> 26

Arg Tyr Thr Gly Ser Thr Gly Arg Cys Gly His Arg Pro Arg Cys Cys  
1 5 10 15

Ser Arg Pro Arg Gly Asn Arg Arg Cys Arg Leu Met  
20 25

<210> 27

<211> 265

<212> PRT

<213> Hepatitis X Related Virus

<400> 27

Leu Ser Leu Trp Arg Glu Arg Gly Ala Ser Ser Phe Thr Ala Arg Ser  
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Leu Arg Ser Ser Asp Arg Thr Val Leu Ser Arg Ser Lys Lys Arg Ser  
20 25 30

Ala Ala Ala Tyr Lys Ala Phe Cys Asp Gly Phe Pro Val Arg His Asp  
35 40 45

Leu Ala Ala Ala Gln Arg Leu Pro His Trp Asp Asp Val Pro Leu Pro  
50 55 60

Ser Ser Val Asp Gln Trp Val Leu Arg Leu Gly Gln Ala Lys Ala Pro  
65 70 75 80

Gly Arg Ala Trp Ala Phe Glu Arg Arg Lys Ser Arg Met Arg Ser Ile  
85 90 95

Trp Ser Ser Leu Arg Pro Met Met Pro Ala Arg Arg Met Gln Glu Asp  
100 105 110

Leu Ala Asp Glu Gly Met Pro Ala Ser Leu Asn Arg Val Ala Arg Val  
115 120 125

Met Ala Lys Ala Gly Leu Gln Gly Trp Pro Arg Arg Lys Lys Arg Gly  
130 135 140

Phe Pro Arg Lys Pro Pro Thr Arg Arg Pro Glu Gly Val Arg Asn Leu  
145 150 155 160

Leu Glu Arg Asp Phe Ser Ala Leu Glu Pro Glu Thr Lys Trp Val Thr  
165 170 175

Asp Ile Thr Glu Ile Val Thr Asp Glu Gly Lys Leu His Leu Cys Val  
180 185 190

Val Leu Asp Leu Tyr Ser Lys Leu Ile Met Gly Trp Ser Met His His  
195 200 205

Arg Gln Asp Arg Pro His Gly Gly Ser Arg Gly Thr Asp Gly Gly Leu  
210 215 220

Ala Ala Arg Gly Arg Arg Arg Gly Asp Pro Ala Phe Arg Ser Arg Arg  
225 230 235 240

Ala Val His Gln Arg Tyr Val Pro Glu Val Pro Arg Gln Pro Cys Leu  
245 250 255

Gly Leu Gln His Glu Arg Gly Arg Pro  
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<210> 28  
<211> 52  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 28

Arg Cys Ser Arg Trp Met Thr Thr Arg Ala Thr Cys Ile Ala Thr Gln  
1 5 10 15

Cys Arg Ser Pro Pro Ser Ser Thr Ile Arg Cys Glu Ser Arg Pro Pro  
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Cys Asn Met Leu Ser Val Tyr Trp Phe Asn Arg Pro Leu Trp Ala Lys  
35 40 45

Thr Gln Leu Met  
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<210> 29  
<211> 67  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 29

Pro Gln Gly Arg Arg Phe Phe Arg Pro Lys Gly Arg Leu Gly Gly Val  
1 5 10 15

Arg Arg Gly Ser Pro Thr Leu Phe Arg Arg Ser Leu Ser Lys Glu Ala  
20 25 30

Ser Ser Gly Ser Val Phe His Thr Val Ser Met Val Ser Ile Thr Val  
35 40 45

Ser Ser Pro Phe Ser Trp Arg Gln Thr Thr Arg Ser Arg Tyr Leu Leu  
50 55 60

Ser Met Met  
65

<210> 30  
<211> 57  
<212> PRT  
<213> Hepatitis X Related Virus

<400> 30

Ala Gln Ala Leu Arg Phe Gly Pro Gly Arg Ala Trp Ala Phe Glu Arg  
1 5 10 15

Arg Lys Ser Arg Met Arg Ser Ile Trp Ser Ser Leu Arg Pro Met Met  
20 25 30

Pro Ala Arg Arg Ile Cys Ser Ser Arg Ala Ser Ser Pro Met Gly Ala  
35 40 45

Leu Lys Phe Arg Thr Ala Arg Thr Met  
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<210> 31  
<211> 20  
<212> DNA  
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<220>  
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 <400> 31  
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<223> Sense Primer  
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<210> 37  
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<400> 37  
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<210> 38  
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 <212> DNA  
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 <223> Antisense Primer

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